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SOUTHERN NUCLEAR
A SOUTHERN COMPANY

JUL 21 2016

Docket No: 50-425

NL-16-0903

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Vogtle Electric Generating Plant – Unit 2
Licensee Event Report 2-2016-002-00
Unit 2 Reactor Trip on Low-Low Steam Generator Level

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 73(a)(2)(iv)(A), due to the actuation of a system listed in 10CFR 5073(a)(2(iv)(B), Southern Nuclear Operating Company (SNC) is submitting the enclosed Licensee Event Report, 2-2016-002-00 for Unit 2. This letter contains no NRC commitments. If you have any questions, please contact George Gunn at (706) 848-3596.

Respectfully submitted,

C. R. Pierce

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Regulatory Affairs Director

CRP/KCW/lac

Enclosure: Unit 2 Licensee Event Report 2-2016-002-00

cc: Southern Nuclear Operating Company
Mr. S. E. Kuczynski, Chairman, President & CEO
Mr. D. G. Bost, Executive Vice President & Chief Nuclear Officer
Mr. D. R. Madison, Vice President – Fleet Operations
Mr. M. D. Meier, Vice President – Regulatory Affairs
Mr. B. K. Taber, Vice President – Vogtle 1 & 2
Mr. B. J. Adams, Vice President – Engineering
Mr. G. W. Gunn, Regulatory Affairs Manager – Vogtle 1 & 2
RType: CVC7000

U.S. Nuclear Regulatory Commission
Ms. C. Haney, Regional Administrator
Mr. R. E. Martin, NRR Project Manager
Mr. T. A. Stephen, Senior Resident Inspector

Vogtle Electric Generating Plant – Unit 2
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Enclosure

Unit 2 Licensee Event Report 2-2016-002-00

NRC FORM 366 (02-2014) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 01/31/2017

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Vogtle Electric Generating Plant – Unit 2	05000425	1 OF 3

4. TITLE

Unit 2 trip on low-low steam generator level

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
									N/A	N/A
05	26	2016	2016	- 002	- 00	07	21	2016	FACILITY NAME N/A	DOCKET NUMBER N/A

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*			
1	☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
	☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
	☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
	☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
10. POWER LEVEL	☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☒ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
	☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
100	☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
	☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER
	☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT	TELEPHONE NUMBER *(Include Area Code)*
Vogtle Electric Generating Plant, Kevin Walden, Licensing Engineer	706-848-4290

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
N/A					N/A				

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO				

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On May 25, 2016 at approximately 0206 Eastern Daylight Time, the Unit 2 was operating in Mode 1 and 100 percent power when the reactor tripped due to low-low level in Steam Generator 1. All control rods fully inserted into the core and all safety systems actuated as designed.

The unit was stabilized in Mode 3 with decay heat being removed through the main steam lines to the steam dumps and to the condenser. The low-low level in Steam Generator 1 was due to a human performance error by technicians performing a loop calibration on the Steam Generator 1 level instrumentation. This error resulted in a perceived high level into the Steam Generator Water Level Control system. In response, the Feedwater regulating valve closed which lowered actual level in Steam Generator 1.

Because all control rods fully inserted into the core and all the safety systems actuated as designed, this event had no adverse effect on the health and safety of the public, and is of very low safety significance. This event is reportable per 10 CFR 73(a)(2)(iv)(A), due to the actuation of a system listed in 10CFR 50.73(a)(2(iv)(B).

LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REV NO.	
Vogtle Electric Generating Plant – Unit 2	05000425	2016	- 002	- 00	2 OF 3

NARRATIVE

A. REQUIREMENT FOR REPORT

This report is required per 10 CFR 73(a)(2)(iv)(A) due to an unplanned automatic actuation of the Reactor Protection System (RPS) which generated an automatic actuation of the Auxiliary Feedwater System (AFW), and Feedwater Isolation (FWI) Engineered Safety Features Actuation Systems (ESFAS).

B. UNIT STATUS AT TIME OF EVENT

Mode 1, 100 percent power

C. DESCRIPTION OF EVENT

While operating at 100 percent power, Unit 2 experienced a low-low level alarm in Steam Generator 1. This resulted in an automatic RPS actuation due to the low-low level. AFW actuated and Main Feedwater Isolated following the RPS actuation as expected. All rods inserted into the core and the plant was stabilized in Mode 3. Decay heat was discharged to the condenser and no complications were experienced during the trip as all systems responded as designed.

The low-low level in Steam Generator 1 was due to a human performance error by technicians performing a loop calibration on the Steam Generator 1 level instruments. This error caused the control circuitry to sense that Steam Generator 1 level was slightly above the program level setting. Based on this condition the level control system responded by closing the feed water regulating valve slightly. This human performance error also caused the control circuitry to not be updated with the current Steam Generator 1 level. The combination of the perceived high level in the Steam Generator and the inability to sense actual Steam Generator level drove the feed water regulating valve to continue to close. This caused the actual level to continue to lower until the low-low level setpoint was reached, which triggered the automatic actuation of the RPS and associated safety features.

D. CAUSE OF EVENT

The cause of the event was a human performance error which resulted in the control circuitry for Steam Generator 1 being unable to sense the actual level in the steam generator and the feed water regulating valve being driven closed.

E. SAFETY ASSESSMENT

When the reactor tripped, all rods fully inserted. As a result of the trip, a FWI occurred and the AFW system actuated as designed. The unit was stabilized in Mode 3 at normal temperature and pressure. Because the plant responded as designed and there were no complications with plant shutdown, there was no adverse effect on plant safety or the health and safety of the public.

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REV NO.	
Vogtle Electric Generating Plant – Unit 2	05000425	2016	- 002	- 00	3 OF 3

NARRATIVE

F. CORRECTIVE ACTION

After this event was identified as being caused by a Human Performance Error, a fleet-wide Human Performance stand down was held. This involved briefings on the importance of HU tool use and error prevention techniques.

Additional corrective actions include procedural enhancements for use when performing these types of calibrations, and reconfiguring the controller interface to help prevent this type of error occurring again.

G. ADDITIONAL INFORMATION

(1) Failed Components:
(a) None. This was a human performance error.

(2) Previous Similar Events:
(a) None found

(3) Energy Industry Identification System Code:
[JC]- Reactor Protection System
[BA]- Auxiliary Feedwater
[SB]- Main Steam System